

24. The system of claim 15, wherein the controller setting apparatus is structured such that the controller parameters of the state controller are adjusted only in such a manner that pairs of poles of the closed control circuit are shifted in an axially symmetrical manner.

25. A system, comprising:

a closed control circuit comprising:

a unit configured to be controlled by an input value and to output a plurality of measuring indices;

a state controller configured to receive the measuring indices, to receive a plurality of control parameters, and to output control output indices; and

an element configured to receive the control output indices and output the input value;  
and

a controller setting apparatus configured to receive at least one setting parameter as an input and to adjust a control behavior of the closed control circuit in accordance with at least one controller parameter output by the controller setting apparatus;

wherein:

the closed control circuit has at least one pole location in a complex frequency range plane representation of the closed control circuit;

the complex frequency range plane includes an origin, a real-component axis and an imaginary-component axis; and

a value of the controller parameter output by the controller setting apparatus corresponds to a shift of the at least one pole location at least generally along a geometric line that is either a semi-circular arc having a focus at the origin or a ray originating from the origin.

26. The system of claim 25, wherein the setting parameter comprises at least one of an amplitude factor, a transient recovery time factor and a rise time.

27. The system of claim 25, wherein the input value output by the element comprises a difference between a desired control value and an actual control value, the actual control value being a sum of the control output indices output by the state controller.

28. The system of claim 25, wherein the state controller comprises:

- a monitor receiving the measuring indices and outputting estimated control values generated from the measuring indices; and
- a basis state controller receiving the estimated control values from the monitor and outputting the control output indices to the element.